STATE OF UTAH

						F NATURAL RESC OIL, GAS AND MI				AMENDE	D REPORT			
			APPLICATIO	N FOR F	PERMIT TO DRILL			1.	. WELL NAME and NU	JMBER .C Tribal 81	H-20-45			
2. TYPE (OF WORK	DRILL NEW WE	ELL 📵 REE	NTER P&A	WELL DEEPEN WE	:u. 🗀		3.	3. FIELD OR WILDCAT WILDCAT					
4. TYPE C	F WELL		Oil Well	Coalbo	d Methane Well: NO			5.	5. UNIT or COMMUNITIZATION AGREEMENT NAME					
6. NAME	OF OPERATO	R						7.	OPERATOR PHONE		0404			
8. ADDRE	BILL BARRETT CORP 3. ADDRESS OF OPERATOR								OPERATOR E-MAIL					
10. MINE	RAL LEASE NU		1099 18th Street		0, Denver, CO, 80202 11. MINERAL OWNERSHII	P		12	BHilge 2. SURFACE OWNERS	ers@billbar SHIP	rettcorp.c	om		
(FEDERA	FEDERAL, INDIAN, OR STATE) 20G0005500 FEDERAL INDIAN INDIAN STATE FEE								FEDERAL NI	DIAN 📵	STATE		E 💮	
13. NAME	OF SURFAC	E OWNER (if box	12 = 'fee')					14	4. SURFACE OWNER	R PHONE (i	f box 12 =	· 'fee')		
15. ADDR	ESS OF SURI	FACE OWNER (if I	box 12 = 'fee')					16	6. SURFACE OWNER	R E-MAIL (i	f box 12 :	= 'fee')		
		OR TRIBE NAME			18. INTEND TO COMMING		FROM	19	9. SLANT					
(if box 1	2 = 'INDIAN')	Uintah and Ouray			CT2	nmingling Application	on) NO 🔳)	VERTICAL DIF	RECTIONAL	() но	ORIZONT	AL 📵	
20. LOC	ATION OF WE	LL		FO	OTAGES	QTR-QTR	SECTIO	N	TOWNSHIP	RAN	IGE	ME	RIDIAN	
LOCATION	ON AT SURFA	CE		1846 FN	IL 561 FWL	SWNW	20		4.0 S	5.0	W		U	
Top of l	Jppermost Pr	oducing Zone		1860 FNL	L 1101 FWL	SWNW	20		4.0 S	5.0	W		U	
At Total	Total Depth 1980 FNL 700 FEL SENE 20					4.0 S	5.0	W		U				
21. COU	NTY	DUCHESNE			22. DISTANCE TO NEARE	ST LEASE LINE (Fe	eet)	23	3. NUMBER OF ACRE	ES IN DRILI 640		•		
					25. DISTANCE TO NEARE (Applied For Drilling or 0		POOL	26	6. PROPOSED DEPTI	H : 10077	TVD: 6509	9		
27. ELEV	ATION - GRO	UND LEVEL			28. BOND NUMBER		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE				E			
		6545			L	PM8874725				43-18				
Otalia a	Hala Cias	0	Lanath	14/ a ! a da	Hole, Casing, a	-	rmation		0		Castra	Viala	Mariant 4	
String	Hole Size	Casing Size	Length 0 - 80	Weigh 65.0		Max Mud Wt.			No Used		Sacks 0	Yield 0.0	Weight 0.0	
Surf	12.25	9.625	0 - 1900	36.0		8.8	Hall	iburton	Light , Type Unkr	nown	260	3.16	11.0	
							Hallib	urton P	remium , Type Un	ıknown	210	1.17	15.8	
I1	8.75	7	0 - 6609	23.0	P-110 LT&C	9.2			Unknown		300	3.14	11.0	
									Unknown		140	1.42	13.5	
L1	6.125	4.5	0 - 10077	11.6	P-110 LT&C	9.5			No Used		0	0.0	0.0	
					АТТ	ACHMENTS								
	VI	ERIFY THE FOL	LOWING ARE	ATTAC	HED IN ACCORDANCE	WITH THE UTA	H OIL AND	GAS C	ONSERVATION G	ENERAL	RULES			
✓ v	/ELL PLAT OR	MAP PREPARED	BY LICENSED S	JRVEYOR	R OR ENGINEER	№ сомі	PLETE DRILL	ING PLA	N					
AI	FIDAVIT OF S	TATUS OF SURFA	CE OWNER AG	REEMENT	(IF FEE SURFACE)	FORM	5. IF OPERA	TOR IS	OTHER THAN THE LE	EASE OWN	ER			
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)							GRAPHICAL	MAP						
NAME Venessa Langmacher TITLE Senior Permit Analyst PHONE 303 312-8172														
SIGNATURE DATE 03/28/2012 EMAIL vlangmacher @billbarrettcorp.com														
	iber assigne 0135133			APPI	ROVAL		E	J. 20	Syll					
	Pe							Permit Manager						

					STA	TE OF UTAH				FOR	M 3	
						OF NATURAL RESOU OIL, GAS AND MINI			AMENDE	D REPORT		
			APPLICAT	ION FOR	PERMIT TO DRILL			1. WELL NAME and NUMBER LC Tribal 8H-20-45				
2. TYPE	OF WORK	DRILL NEW WE	ELL (📵) R	EENTER P&	A WELL DEEPEN W	ELL (3. FIELD OR WILDCAT WILDCAT				
4. TYPE (4. TYPE OF WELL Oil Well Coalbed Methane Well: NO								IZATION A	GREEME	NT NAM	E
6. NAME	6. NAME OF OPERATOR BILL BARRETT CORP								303 312-	8164		
8. ADDRE	ESS OF OPERA		1000 18th St		0, Denver, CO, 80202			9. OPERATOR E-MAIL	rs@billbar			
	RAL LEASE NU	JMBER	1099 16111 51	eet Ste 230	11. MINERAL OWNERSH	P		12. SURFACE OWNERS		reticorp.ct		
	AL, INDIAN, OR	2OG0005500			FEDERAL NDIA	N 📵 STATE 🔵	FEE 💮	~	IAN 📵	STATE (E()
		E OWNER (if box						14. SURFACE OWNER				
15. ADDF	RESS OF SURI	FACE OWNER (if I	box 12 = 'fee	')				16. SURFACE OWNER	E-MAIL (i	f box 12 =	: 'fee')	
	N ALLOTTEE 2 = 'INDIAN')	OR TRIBE NAME			18. INTEND TO COMMIN MULTIPLE FORMATIONS		ROM	19. SLANT				
(56% .		Uintah and Ouray			YES (Submit Cor	nmingling Application)) NO 📵	VERTICAL DIRI	ECTIONAL	🔵 но	RIZONT	AL 📵
20. LOC	ATION OF WE	LL		FC	OTAGES	QTR-QTR	SECTION	TOWNSHIP	RAN	GE	МЕ	RIDIAN
LOCATI	ON AT SURFA	CE		1846 FI	NL 561 FWL	SWNW	20	4.0 S	5.0	w		U
Top of I	Uppermost Pr	oducing Zone		1860 FN	L 1101 FWL	SWNW	20	4.0 S	5.0	w		U
At Tota	l Depth			1980 F	NL 700 FEL	SENE	20	4.0 S 5.0		W		U
21. COU	NTY	DUCHESNE			22. DISTANCE TO NEAR	ST LEASE LINE (Feet	t)	23. NUMBER OF ACRE	S IN DRILL 640	ING UNIT		
25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 5490						OOL	26. PROPOSED DEPTH MD:	l 10077	ΓVD: 6509)		
27. ELEVATION - GROUND LEVEL 28. BOND NUMBER												
27. ELEV	ATION - GRO	JND LEVEL			28. BOND NUMBER	0400		29. SOURCE OF DRILL WATER RIGHTS APPRO			PLICABL	.E
27. ELEV	ATION - GROU	JND LEVEL 6545			ι	PM8874725				BER IF AP	PLICABL	.E
		6545	Length	Weig	Hole, Casing, a		nation		OVAL NUMI	BER IF AP		
27. ELEV	Hole Size		Length 0 - 80	Weig	Hole, Casing, a	.PM8874725 ind Cement Inforn	nation	WATER RIGHTS APPRO	OVAL NUMI	BER IF AP	Yield	Weight 0.0
String	Hole Size	6545 Casing Size		65.0	Hole, Casing, and Grade & Thread	PM8874725 and Cement Inforn Max Mud Wt.	Halliburto	Cement No Used	43-18 Own	Sacks 0 260	Yield 0.0 3.16	Weight 0.0 11.0
String Cond Surf	Hole Size 26 12.25	6545 Casing Size 16 9.625	0 - 80 0 - 190	65.0	Hole, Casing, ant Grade & Thread Unknown J-55 ST&C	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8	Halliburto	Cement No Used on Light , Type Unknow	43-18 Own	Sacks 0 260 210	Yield 0.0 3.16 1.17	Weight 0.0 11.0 15.8
String Cond	Hole Size	Casing Size	0 - 80	65.0	Hole, Casing, ant Grade & Thread Unknown J-55 ST&C	.PM8874725 ind Cement Inforn Max Mud Wt. 8.8	Halliburto	Cement No Used	43-18 Own	Sacks 0 260	Yield 0.0 3.16	Weight 0.0 11.0
String Cond Surf	Hole Size 26 12.25	6545 Casing Size 16 9.625	0 - 80 0 - 190	65.0 36.0 9 23.0	Hole, Casing, a fit Grade & Thread Unknown J-55 ST&C P-110 LT&C	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8	Halliburto	Cement No Used on Light , Type Unknown	43-18 Own	Sacks 0 260 210 300	7ield 0.0 3.16 1.17 3.14	Weight 0.0 11.0 15.8 11.0
String Cond Surf	Hole Size 26 12.25 8.75	6545 Casing Size 16 9.625	0 - 80 0 - 190 0 - 660	65.0 0 36.0 9 23.0	Hole, Casing, and Grade & Thread Unknown J-55 ST&C P-110 LT&C	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2	Halliburto	Cement No Used on Light , Type Unknown Unknown	43-18 Own	Sacks 0 260 210 300 140	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf	Hole Size 26 12.25 8.75 6.125	6545 Casing Size 16 9.625 7 4.5	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 36.0 9 23.0	Hole, Casing, and Grade & Thread Unknown J-55 ST&C P-110 LT&C	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS	Halliburton	Cement No Used In Light , Type Unknown Unknown Unknown No Used	own	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf	Hole Size 26 12.25 8.75 6.125	6545 Casing Size 16 9.625 7 4.5	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 36.0 9 23.0 7 11.6	Hole, Casing, a nt Grade & Thread Unknown J-55 ST&C P-110 LT&C ATT CHED IN ACCORDANC	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS E WITH THE UTAH	Halliburton	Cement No Used on Light , Type Unknown Unknown Unknown No Used	own	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf	Hole Size 26 12.25 8.75 6.125	6545 Casing Size 16 9.625 7 4.5 ERIFY THE FOL	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 36.0 9 23.0 7 11.6 RE ATTAC	Hole, Casing, a nt Grade & Thread Unknown J-55 ST&C P-110 LT&C ATT CHED IN ACCORDANC	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS E WITH THE UTAH	Halliburton Halliburton OIL AND GAS	Cement No Used on Light , Type Unknown Unknown Unknown No Used	own known	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf	Hole Size 26 12.25 8.75 6.125 VE	Casing Size 16 9.625 7 4.5 ERIFY THE FOL MAP PREPARED	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 9 23.0 7 11.6 RE ATTAC O SURVEYO AGREEMEN	Hole, Casing, a t Grade & Thread Unknown J-55 ST&C P-110 LT&C ATT CHED IN ACCORDANC R OR ENGINEER	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS E WITH THE UTAH FORM 5.	Halliburton Halliburton OIL AND GAS	Cement No Used In Light , Type Unknown Unknown Unknown No Used CONSERVATION GE	own known	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf I1 L1 A	Hole Size 26 12.25 8.75 6.125 VE	Casing Size 16 9.625 7 4.5 ERIFY THE FOL MAP PREPARED TATUS OF SURFA	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 36.0 9 23.0 7 11.6 RE ATTAC	Hole, Casing, a nt Grade & Thread Unknown J-55 ST&C P-110 LT&C ATT CHED IN ACCORDANC R OR ENGINEER T (IF FEE SURFACE)	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS E WITH THE UTAH FORM 5.	Halliburton Halliburton OIL AND GAS ETE DRILLING PI	Cement No Used on Light , Type Unknown Unknown Unknown No Used CONSERVATION GE	own known	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf I1 L1 A	Hole Size 26 12.25 8.75 6.125 VE VELL PLAT OR FFIDAVIT OF S IRECTIONAL S	Casing Size 16 9.625 7 4.5 ERIFY THE FOL MAP PREPARED TATUS OF SURFA	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 0 36.0 9 23.0 7 11.6 RE ATTAC	Hole, Casing, a nt Grade & Thread Unknown J-55 ST&C P-110 LT&C ATT CHED IN ACCORDANC R OR ENGINEER T (IF FEE SURFACE) DRIZONTALLY DRILLED)	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS E WITH THE UTAH FORM 5.	Halliburton Halliburton OIL AND GAS ETE DRILLING PI . IF OPERATOR IS RAPHICAL MAP	Cement No Used on Light , Type Unknown Unknown Unknown No Used CONSERVATION GE	OWN ENERAL I	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5
String Cond Surf I1 L1 L1 NAME V SIGNAT	Hole Size 26 12.25 8.75 6.125 VE VELL PLAT OR FFIDAVIT OF S IRECTIONAL S	Casing Size 16 9.625 7 4.5 ERIFY THE FOL MAP PREPARED TATUS OF SURFA	0 - 80 0 - 190 0 - 660 0 - 1007	65.0 36.0 9 23.0 7 11.6 RE ATTAC	Hole, Casing, a nt Grade & Thread Unknown J-55 ST&C P-110 LT&C ATT CHED IN ACCORDANC R OR ENGINEER T (IF FEE SURFACE) DRIZONTALLY DRILLED) LE Senior Permit Analyst	PM8874725 Ind Cement Inform Max Mud Wt. 8.8 8.8 9.2 9.5 FACHMENTS E WITH THE UTAH FORM 5.	Halliburton Halliburton OIL AND GAS ETE DRILLING PI . IF OPERATOR IS RAPHICAL MAP	Cement No Used on Light , Type Unknown Unknown Unknown No Used CONSERVATION GE LAN SOTHER THAN THE LEA	OWN ENERAL I	Sacks 0 260 210 300 140 0	Yield 0.0 3.16 1.17 3.14 1.42	Weight 0.0 11.0 15.8 11.0 13.5

DRILLING PLAN

BILL BARRETT CORPORATION

LC Tribal 8H-20-45

SHL: SW NW, 1846' FNL and 561' FWL, Section 20, T4S-R5W BHL: SE NE, 1980' FNL and 700' FEL, Section 20, T4S-R5W Duchesne Co., UT

Bill Barrett Corporation (BBC) intends to drill a horizontal through the prospective zone within the Uteland Butte.

1 - 3. <u>Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals</u>

HORIZONTAL LEG FORMATION TOPS

Formation	Depth – MD	Depth - TVD
Green River	2,134'	2,134'
Surface casing	1,900'	1,900'
Mahogany	2,734'	2,734'
TGR3	4,044'	4,044'
Douglas Creek	4,894'	4,894'
3 PT Marker	5,279'	5,279'
Black Shale Facies	5,734'	5,734'
Castle Peak	5,972'	5,966'
*Uteland Butte	6,539'	6,305'
TD	10,077	6,509'

*PROSPECTIVE PAY

The Uteland Butte is the primary objective for oil/gas.

Base of Useable Water = 5,700'

4. <u>Casing Program</u>

Hole	SETTING DEPTH		SETTING DEPTH		Casing	Casing	Casing		
<u>Size</u>	(FROM)	(TO)	<u>Size</u>	Weight	<u>Grade</u>	<u>Thread</u>	Condition		
12-1/4"	surface	1,900'	9 5/8"	36.0 ppf	J or K 55	ST&C	New		
8 ¾"	surface	6,609'	7"	23.0 ppf	P-110	LT&C	New		
6 1/8"	surface	10,077'	4 1/2	11.6 ppf	P-110	LT&C	New		
			Liner with						
			4-1/2"						
			Tieback						
			for frac						

RECEIVED: March 28, 2012

Drilling Plan LC Tribal 8H-20-45 Duchesne Co., UT

5. <u>Cementing Program</u>

9 5/8" Surface Casing	Lead with approximately 260 sx Halliburton Light Premium
	cement with additives mixed at 11.0 ppg (yield = 3.16
	ft ³ /sx). TOC @ Surface
	Tail with 210 sx Premium 14.8 ppg (yield = $1.36 \text{ ft}^3/\text{sx}$)
	calculated hole volume with 75% excess. TOC @ 1,400'
	Top out cement, if required: 100 sx of Premium cement with
	additives mixed at 15.8 ppg (yield = 1.17 ft ³ /sk)
7" Intermediate Casing	Lead with approximately 300 sx Tune Light cement with
	additives, mixed at 11.0 ppg (yield = $3.14 \text{ ft}^3/\text{sx}$). TOC @
	1,400'
	Tail with approximately 140 sx Halliburton Econocem
	cement with additives mixed at 13.5 ppg (yield = 1.42
	ft^3/sx). TOC @ 4,741'
4 ½" Liner with 4-1/2" Tieback to	No cement will be used in this section. Swell packers will
surface	be run to isolate the production hole from the intermediate
	casing section.
Note: Top of Tail cement for the in	termediate string will be calculated to 1000' above the KOP

Note: Top of Tail cement for the intermediate string will be calculated to 1000' above the KOP using gauge hole plus 50% excess. Lead to 200' inside of surface casing.

6. <u>Mud Program</u>

<u>Interval</u>	Weight	<u>Viscosity</u>	Fluid Loss	<u>Remarks</u>
			(API filtrate)	
40' – 1,900'	8.4 - 8.8	26 - 36	NC	Freshwater Spud Mud Fluid
				System
1,900' - 6,609'	8.9 - 9.2	26 - 36	NC	Fresh Water with sweeps
6,609' – TD	9.0 - 9.5	45 - 58	4 – 10	Fresh Water PHPA

Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.

7. BOP and Pressure Containment Data

Depth Intervals	Depth Intervals BOP Equipment					
0 – 1,900'	No pressure control required					
1,900' - TD	1,900' – TD					
11" 5000# Annular BOP						
- Drilling spool to a	- Drilling spool to accommodate choke and kill lines;					
- Ancillary and cho	ke manifold to be rated @ 5000 psi;					
- Ancillary equipme	ent and choke manifold rated at 5,000#. All BOP and BOPE tests will be in					
accordance with tl	accordance with the requirements of onshore Order No. 2;					
- The BLM and the	- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in					
advance of all BC	OP pressure tests.					

- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up to operate most efficiently in this manner.

Drilling Plan LC Tribal 8H-20-45 Duchesne Co., UT

8. Auxiliary Equipment

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use
- d) Mud monitoring will be visually observed

9. Testing, Logging and Core Programs

Cores	None anticipated;				
Testing	None anticipated; drill stem tests may be run on shows of interest;				
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;				
Surveys	MWD with GR as needed to land wellbore;				
WL Logging	None in intermediate				
Note: FMI and CAL may be run on the lateral portion of the horizontal wellbore at the geologist's					
discretion.					

10. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 3215 psi* and maximum anticipated surface pressure equals approximately 1783 psi** (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

*Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

11. <u>Location and Type of Water Supply</u>

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W.

12. <u>Drilling Schedule</u>

Location Construction: November 2012
Spud: November 2012
Duration: 25 days drilling time

25 days completion time

^{**}Maximum surface pressure = A - (0.22 x TD)

Well name: BTR/LC HZ Well
Operator: BBC

String type: Surface

Location: Utah

Design parameters: Minimum design factors: Environment: Collapse Collapse: H2S considered?

DilapseCollapse:H2S considered?NoMud weight:8.900 ppgDesign factor1.125Surface temperature:75 °FDesign is based on evacuated pipe.Bottom hole temperature:96 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,000 ft

Minimum Drift: 8.750 in

Design factor 1.00 Cement top: Surface

Burst

Max anticipated surface

pressure: 527 psi Internal gradient: 0.220 psi/ft

Calculated BHP 857 psi

Annular backup: 9.50 ppg

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) Buttress: 1.60 (J)

Premium: 1.50 (J) Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 1,302 ft

Re subsequent strings:

Non-directional string.

Next setting depth: 4,697 ft
Next mud weight: 9.500 ppg
Next setting BHP: 2,318 psi
Fracture mud wt: 11.000 ppg

Fracture mud wt: 1: Fracture depth: Injection pressure

1,500 ft 857 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Internal
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Capacity (ft³)
1	1500	9.625	36.00	K-55	ST&C	1500	1500	8.765	106.8
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load (psi)	Strength (psi)	Design Factor	Load (psi)	Strength (psi)	Design Factor	Load (Kips)	Strength (Kips)	Design Factor
1	693	2020	2.913	527	3520	6.68	47	423	9.02 J

Bill Barrett

Date: June 23,2011 Denver, Colorado

Remarks:

Collapse is based on a vertical depth of 1500 ft, a mud weight of 8.9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name: BTR/LC HZ Well

Operator: BBC

String type: Intermediate

Location: Utah

Design parameters: Minimum design factors: Environment: Collapse Collapse: H2S considered? No Mud weight: 9.500 ppg Design factor 75 °F 1.125 Surface temperature: 161 °F Design is based on evacuated pipe. Bottom hole temperature: Temperature gradient: 1.40 °F/100ft Minimum section length: 1,500 ft Burst: Minimum Drift: 6.125 in Design factor 1.00 Cement top: 11 ft Burst Max anticipated surface pressure: 1,683 psi Internal gradient: 0.220 psi/ft Tension: Directional Info - Build & Hold Calculated BHP 3,036 psi 8 Round STC: 1.80 (J) Kick-off point 5580 ft 8 Round LTC: 1.80 (J) Departure at shoe: 604 ft Annular backup: 9.50 ppg Buttress: 1.60 (J) Maximum dogleg: 10 °/100ft Premium: 1.50 (J) Inclination at shoe: 93.1° Body yield: Re subsequent strings: 1.50 (B) Next setting depth: 5,980 ft Tension is based on buoyed weight. Next mud weight: 9.500 ppg Neutral point: 5,274 ft Next setting BHP: 2,951 psi 14.000 ppg Fracture mud wt: Fracture depth: 6,152 ft

Run	Segment		Nominal		End	True Vert	Measured	Drift	Internal
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Capacity
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(ft³)
1	6511	7	23.00	N-80	LT&C	6152	6511	6.25	300.9
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(Kips)	(Kips)	Factor
1	3036	3575	1.177	1683	6340	3.77	121	442	3.64 J

Bill Barrett

Date: June 23,2011 Denver, Colorado

Injection pressure

4,474 psi

Remarks:

Collapse is based on a vertical depth of 6152 ft, a mud weight of 9.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name: Operator:

N/A

String type:

Production Liner

BTR/LC HZ Well

Design parameters:

Collapse

Mud weight: 9.500 ppg Design is based on evacuated pipe.

Minimum design factors:

1.125

Collapse:

Design factor

Environment:

H2S considered? No Surface temperature: 75 °F Bottom hole temperature: 155 °F

Temperature gradient: 1.40 °F/100ft Minimum section length: 1,000 ft

Burst:

Design factor 1.00 Minimum Drift:

3.875 in

Burst

Max anticipated surface

pressure: 1,572 psi Internal gradient: 0.220 psi/ft Calculated BHP 2,837 psi

Annular backup: 9.50 ppg Tension:

8 Round LTC: Buttress:

Premium: Body yield:

8 Round STC: 1.80 (J) 1.80 (J) 1.60 (J)

1.50 (J) 1.60 (B)

Tension is based on buoyed weight. Neutral point: 5,703 ft

5,000 ft Liner top: Directional Info - Build & Hold Kick-off point 5123 ft Departure at shoe: 4885 ft

Maximum dogleg: 8 °/100ft Inclination at shoe: 91.26°

Run	Segment	240	Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
1	5418	4.5	11.60	P-110	LT&C	5748	10418	3.875	26104
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
1	2837	7580	2.672	205	10690	52.25	7.4	279	37.48 J

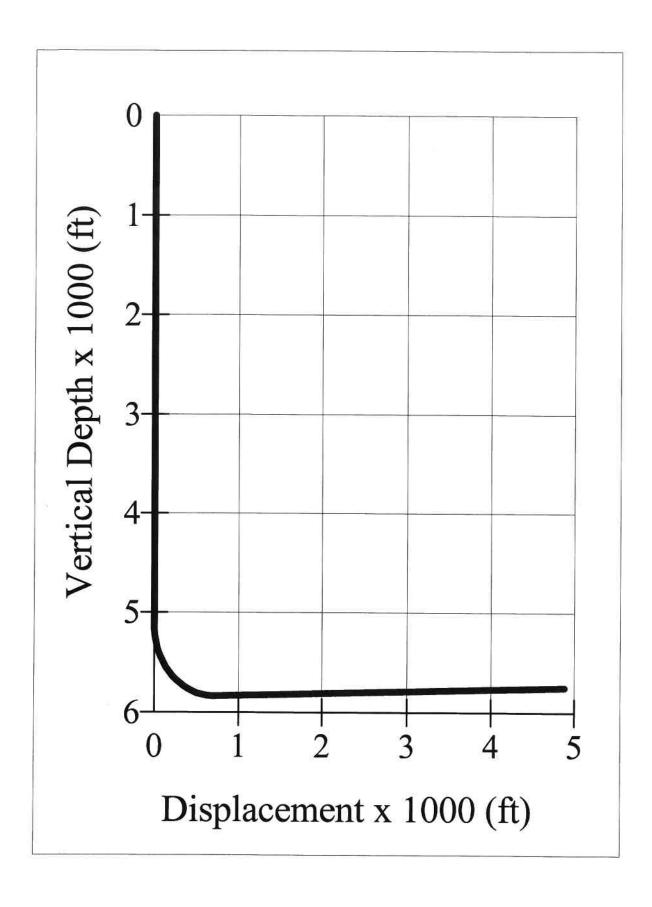
Bill Barrett

Date: June 23,2011 Denver, Colorado

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 5748 ft, a mud weight of 9.5 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

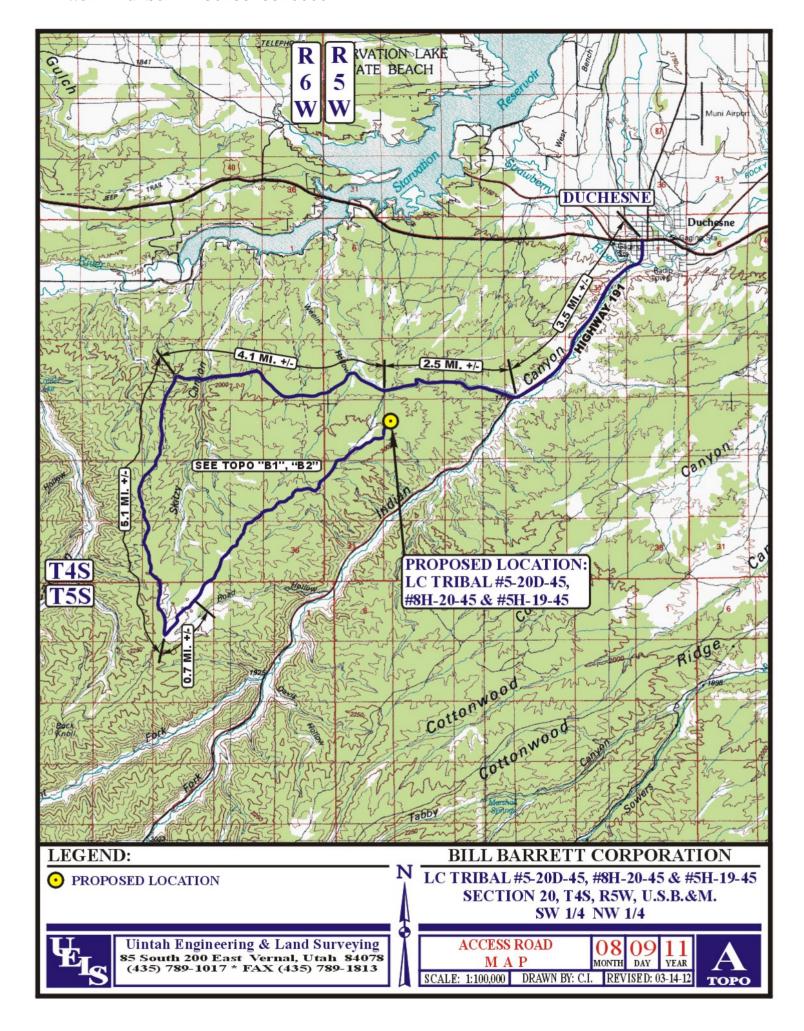
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

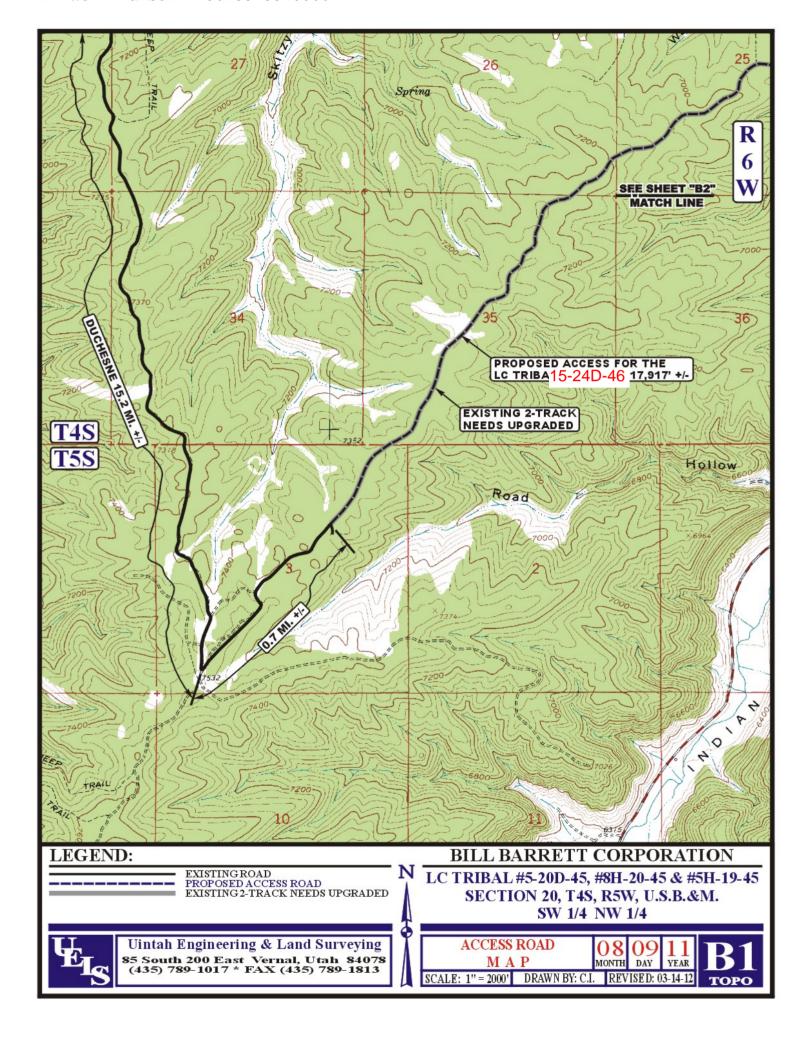


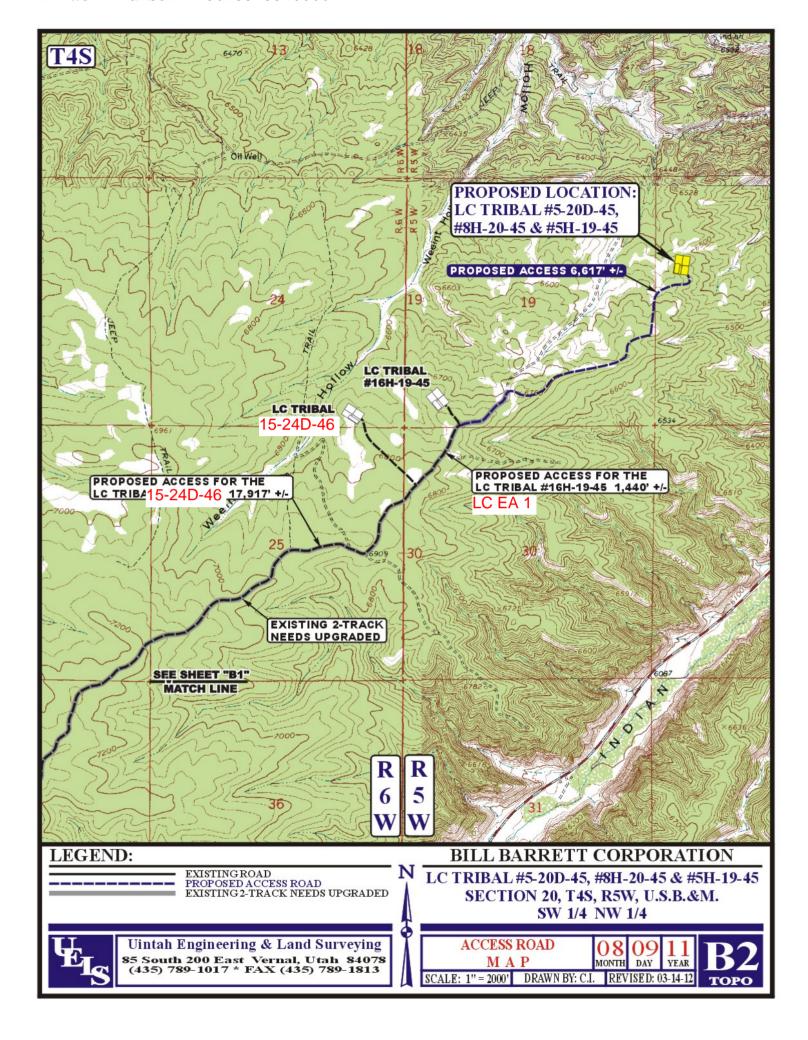
43013513320000 Number: API Well EGEND: N00°09'07"W -Set Marked Stone II П Stone NOO°14'30"W - 2631.56' (Meas.) 2622.24' (Meas.) PROPOSED WELL HEAD. 90° SYMBOL SECTION CORNERS LOCATED Set Stone 561 N89°23′53″W — 1846 Elev. 70 Ungraded Ground TRIBAL 2630.70' (Meas., N89°39'35"E #8H-20-LATITUDE = 40'07'13.18" (40.120328) LONGITUDE = 110'28'01.38" (110.467050) NAD 27 (TARGET BOTTOM HOLE) NAD 83 (TARGET BOTTOM HOLE) ONGITUDE = 110°27'58.82" (110.466339) R5W, U.S.B.&MĪ 200 5253.38' (Meas., 2002 Alum. Cap, 0.4' High, S88'25'35"E S88°50'33"W 4003.97 (40.120367) LATITUDE NAD LATITUDE = $40^{\circ}07'14.21''$ (40.120614) LONGITUDE = $110^{\circ}28'52.89''$ (110.481358) NAD 27 (SURFACE LOCATION) _ATITUDE = 40°07'14.36" (40.120656) _ONGITUDE = 110°28'50.33" (110.480647) 2610.78 83 (SURFACE LOCATION) Ho/e Bottom 1980 2002 Alum. Ca 0.7' High, Pile of Stones 2002 Alum. Cap, 2.0' High, Pile of Stones (Meas. Set Stone 700 Cap, N0019'08"E 2620.51' S00°26'15"E 2639.48 (Meas.) (Meas.) R5W, U.S.B.&M., Duchesne County, Utah. shown in the SW 1/4 NW 1/4 of Section Well location, PARTY SCALE REV: 03-13-12 Z.L. WEATHER (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED ON CAP AS BEING 6097 FEET. BENCH MARK (M67) LOCATED IN THE SW 1/4 OF SECTION 9, T5S, R4W, U.S.B.&M., TAKEN FROM THE DUCHESNE SE, QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD UINTAH 85 SOUTH G.O. WARM BASIS BILL 1000 THIS IS TO CERTIFY THAT THE ABOVE PATURAS PREPARED FOR JUDIES OF ACTUAL SURVEYS MAN BY WE OR UNDER MY SUPERVISION AND THAT THE SAME AND TRUE AND CORRESPOND TO BEST OF MY KNOWLEDGE AND BELIEF Ω OF BEARINGS IS A G.P.S. OBSERVATION \triangleright ENGINEERING LC TRIBAL #8H-20-45, located 200 EAST BARRETT CORPORATION 1000 BASIS OF BASIS X.0 (435) 789–1017 500' 읶 CERTIFICATE S ELEVATION BEARINGS DATE SURVEYED: \circ REFERENCES ጵ REGISTERED LAND SURVEYOR STATE OF REGISTR! **⊳** VERNAL, 07-26-11 G.L.O. LAND ш BARRETT CORPORATION ON NO. 161319 PLAT TAMITE OF 3 UTAN UTAH 84078 SURVEYING DATE DRAWN: 1000 08-13-11 20, SIIIIIIIIII T4S, as ЯОУ 2012 28,

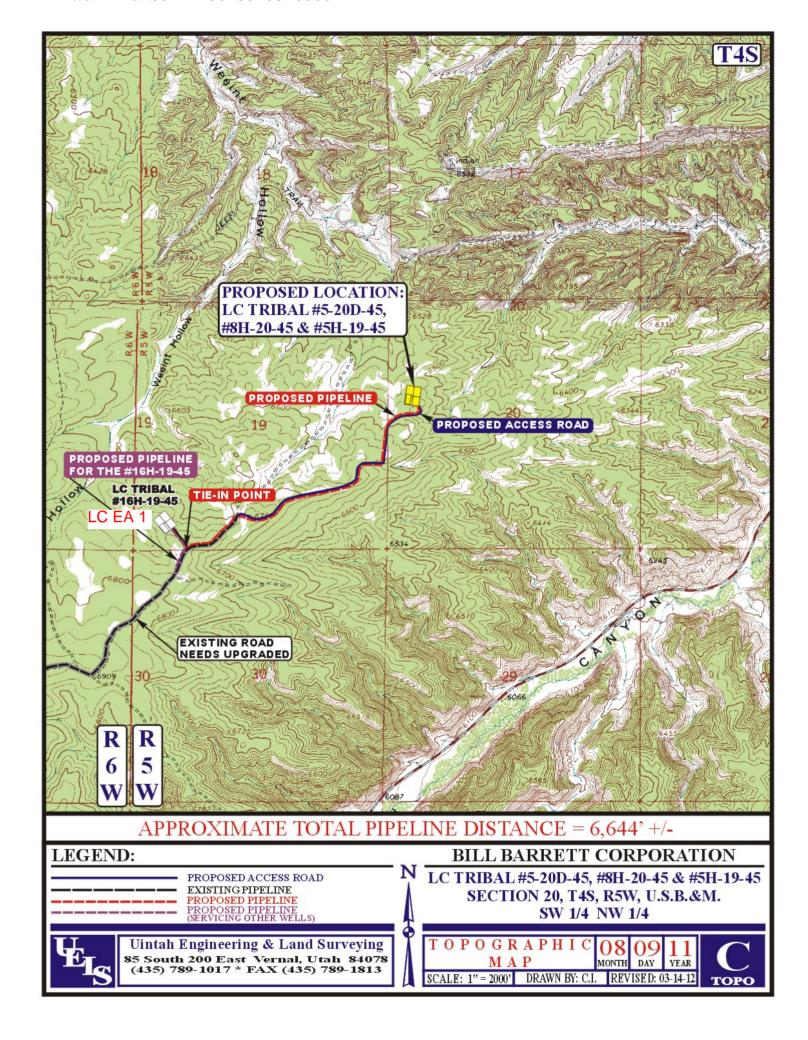
RECEIVED:

March









Bill Barrett Corporation

COMPANY DETAILS: BILL BARRETT CORP

Calculation Method: Minimum Curvature

Error System: ISCWSA

Scan Method: Closest Approach 3D Error Surface: Elliptical Conic

Warning Method: Error Ratio

SITE DETAILS: 8H-20-45 LC Tribal Lake Canyon

> Site Latitude: 40° 7' 14.362 N Site Longitude: 110° 28' 50.329 W

Positional Uncertainity: 0.0 Convergence: 0.65 Local North: True

WELL DETAILS: 8H-20-45 LC Tribal

Ground Level: 6545.0

Northing +N/-S +E/-W Easting Latittude Longitude 0.0 652618.50 40° 7' 14.362 N 110° 28' 50.329 W 0.0 2285057.76

Slot

WELLBORE TARGET DETAILS (L	_AT/LONG)
----------------------------	-----------

2250-

Name TVD 8H-20-45 LC Tribal PBHL6509.0 **TVD** +N/-S +E/-W Latitude Longitude Shape

110° 27' 58.820 W Rectangle (Sides: L200.0 W200.0) -104.94001.3 40° 7' 13.321 N

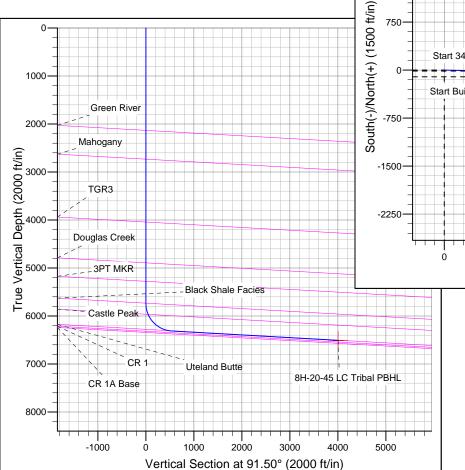
SECTION DETAILS

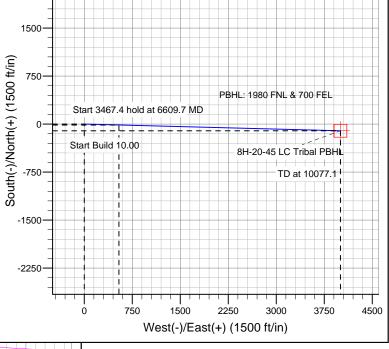
Sec MD TVD +N/-S +E/-W DLeg **TFace** VSec Target Inc Azi 0.00 0.00 0.0 0.0 0.0 0.00 0.0 0.0 0.00 5741.9 5741.9 0.0 0.0 0.0 2 0.00 0.00 0.00 0.00 3 6609.7 86.78 91.50 6314.0 -14.2 540.5 10.00 91.50 540.7 6509.0 -104.9 4001.3 0.00 4002.7 10077.1 86.78 91.50 0.00 5 8H-20-45 LC Tribal PBH 10077.1 0.00 0.00 6509.0 -104.9 4001.3 0.00 180.00 4002.7

	FORMATION TOP DETAILS							
	TVDPath	MDPath	Formation CR 1					
	2134.0 2734.0	2134.0 2734.0	CR 1A Base Green River Mahogany					
	4044.0 4894.0	4044.0 4894.0	TGR3 Douglas Creek					
L	5279.0 5734.0	5279.0 5734.0	3PT MKR Black Shale Facies					
ı	5966.6 6305.6	5972.8 6539.0	Castle Peak Uteland Butte					

CASING DETAILS

No casing data is available





Т

Azimuths to True North Magnetic North: 11.40°

Magnetic Field Strength: 52174.0snT Dip Angle: 65.76° Date: 2/24/2012 Model: IGRF2010

BILL BARRETT CORP

DUCHESNE COUNTY, UT (NAD 27) 8H-20-45 LC Tribal 8H-20-45 LC Tribal

8H-20-45 LC Tribal

Plan: Design #1

Standard Planning Report

07 March, 2012

Bill Barrett Corp

Planning Report

Database: Compass

Company: BILL BARRETT CORP

 Project:
 DUCHESNE COUNTY, UT (NAD 27)

 Site:
 8H-20-45 LC Tribal

 Well:
 8H-20-45 LC Tribal

Wellbore: 8H-20-45 LC Tribal
Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well 8H-20-45 LC Tribal

KB @ 6561.0ft (Original Well Elev) KB @ 6561.0ft (Original Well Elev)

True

Minimum Curvature

Project DUCHESNE COUNTY, UT (NAD 27)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: Utah Central 4302

System Datum:

Ground Level

Site 8H-20-45 LC Tribal

Northing: 652,618.51 ft Site Position: Latitude: 40° 7' 14.362 N From: Lat/Long Easting: 2,285,057.76 ft Longitude: 110° 28' 50.329 W **Position Uncertainty:** 0.0 ft Slot Radius: **Grid Convergence:** 0.65 °

Well 8H-20-45 LC Tribal **Well Position** +N/-S 0.0 ft Northing: 652,618.50 ft Latitude: 40° 7' 14.362 N +E/-W 0.0 ft Easting: 2,285,057.76 ft Longitude: 110° 28' 50.329 W **Position Uncertainty** 0.0 ft Wellhead Elevation: ft **Ground Level:** 6,545.0 ft

Wellbore 8H-20-45 LC Tribal Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 2/24/2012 11.40 65.76 52,174

Design #1 Design **Audit Notes:** Version: Phase: PLAN Tie On Depth: 0.0 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.0 0.0 0.0 91.50

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,741.9	0.00	0.00	5,741.9	0.0	0.0	0.00	0.00	0.00	0.00	
6,609.7	86.78	91.50	6,314.0	-14.2	540.5	10.00	10.00	0.00	91.50	
10,077.1	86.78	91.50	6,509.0	-104.9	4,001.3	0.00	0.00	0.00	0.00	
10,077.1	0.00	0.00	6,509.0	-104.9	4,001.3	0.00	0.00	0.00	180.00 8	H-20-45 LC Tribal Pl

Bill Barrett Corp

Planning Report

Database: Compass

Company: BILL BARRETT CORP

Project: DUCHESNE COUNTY, UT (NAD 27)

 Site:
 8H-20-45 LC Tribal

 Well:
 8H-20-45 LC Tribal

 Wellbore:
 8H-20-45 LC Tribal

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 8H-20-45 LC Tribal

KB @ 6561.0ft (Original Well Elev) KB @ 6561.0ft (Original Well Elev)

True

Minimum Curvature

sign:	Design #1								
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
					0.0				
500.0 600.0	0.00 0.00	0.00 0.00	500.0	0.0 0.0	0.0 0.0	0.0	0.00	0.00 0.00	0.00
700.0	0.00	0.00	600.0 700.0	0.0	0.0	0.0 0.0	0.00 0.00	0.00	0.00 0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000,0	0.00	0.00	2,000,0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0		0.00	0.00 0.00
2,100.0 2,134.0	0.00 0.00	0.00	2,100.0 2,134.0	0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00	0.00
	0.00	0.00	2,134.0	0.0	0.0	0.0	0.00	0.00	0.00
Green River 2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,734.0	0.00	0.00	2,734.0	0.0	0.0	0.0	0.00	0.00	0.00
Mahogany									
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,044.0	0.00	0.00	4,044.0	0.0	0.0	0.0	0.00	0.00	0.00
TGR3									
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00

Bill Barrett Corp

Planning Report

Database: Compass

Company: BILL BARRETT CORP

Project: DUCHESNE COUNTY, UT (NAD 27)
Site: 8H-20-45 LC Tribal

 Well:
 8H-20-45 LC Tribal

 Wellbore:
 8H-20-45 LC Tribal

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well 8H-20-45 LC Tribal

KB @ 6561.0ft (Original Well Elev) KB @ 6561.0ft (Original Well Elev)

True

Minimum Curvature

esign:	Design #1								
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,894.0	0.00	0.00	4,894.0	0.0	0.0	0.0	0.00	0.00	0.00
Douglas Cre 4,900.0	9 ek 0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0 5,200.0	0.00 0.00	0.00 0.00	5,100.0 5,200.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00 0.00	0.00 0.00	0.00 0.00
5,279.0	0.00	0.00	5,279.0	0.0	0.0	0.0	0.00	0.00	0.00
3PT MKR	0.00	0.00	0,2.0.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,734.0	0.00	0.00	5,734.0	0.0	0.0	0.0	0.00	0.00	0.00
Black Shale		0.00	5.744.0	0.0	0.0	0.0	0.00	0.00	0.00
5,741.9	0.00	0.00	5,741.9	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	5.81	91.50	5,799.9	-0.1	2.9	2.9	10.00	10.00	0.00
5,900.0	15.81	91.50	5,898.0	-0.6	21.7	21.7	10.00	10.00	0.00
5,972.8	23.09	91.50	5,966.6	-1.2	45.9	45.9	10.00	10.00	0.00
Castle Peak 6,000.0	25.81	91.50	5,991.4	-1.5	57.1	57.2	10.00	10.00	0.00
6,100.0	35.81	91.50	6,077.1	-2.8	108.3	108.3	10.00	10.00	0.00
6,200.0 6,300.0	45.81 55.81	91.50 91.50	6,152.7 6,215.8	-4.6 -6.6	173.5 250.9	173.6 251.0	10.00 10.00	10.00 10.00	0.00 0.00
6,400.0	65.81	91.50	6,264.5	-8.9	338.1	338.2	10.00	10.00	0.00
6,500.0	75.81	91.50	6,297.4	-11.3	432.4	432.5	10.00	10.00	0.00
6,539.0	79.71	91.50	6,305.6	-12.3	470.4	470.6	10.00	10.00	0.00
Uteland But	te								
6,600.0	85.81	91.50	6,313.3	-13.9	530.9	531.1	10.00	10.00	0.00
6,609.7	86.78	91.50	6,314.0	-14.2	540.5	540.7	10.00	10.00	0.00
6,700.0	86.78	91.50	6,319.0	-16.5	630.7	630.9	0.00	0.00	0.00
6,800.0 6,900.0	86.78 86.78	91.50 91.50	6,324.7 6,330.3	-19.2 -21.8	730.5 830.3	730.8 830.6	0.00 0.00	0.00 0.00	0.00 0.00
7,000.0	86.78	91.50	6,335.9	-24.4 -27.0	930.1	930.5 1,030.3	0.00 0.00	0.00	0.00 0.00
7,100.0 7,200.0	86.78 86.78	91.50 91.50	6,341.5 6,347.2	-27.0 -29.6	1,029.9 1,129.8	1,130.1	0.00	0.00 0.00	0.00
7,300.0	86.78	91.50	6,352.8	-32.2	1,229.6	1,230.0	0.00	0.00	0.00
7,400.0	86.78	91.50	6,358.4	-34.9	1,329.4	1,329.8	0.00	0.00	0.00
7,500.0	86.78	91.50	6,364.0	-37.5	1,429.2	1,429.7	0.00	0.00	0.00
7,600.0	86.78	91.50	6,369.7	-40.1	1,529.0	1,529.5	0.00	0.00	0.00
7,700.0	86.78	91.50	6,375.3	-42.7	1,628.8	1,629.3	0.00	0.00	0.00
7,800.0	86.78	91.50	6,380.9	-45.3	1,728.6	1,729.2	0.00	0.00	0.00
7,900.0	86.78	91.50	6,386.5	-48.0	1,828.4	1,829.0	0.00	0.00	0.00
8,000.0	86.78	91.50	6,392.2	-50.6	1,928.2	1,928.9	0.00	0.00	0.00
8,100.0	86.78 96.79	91.50	6,397.8	-53.2	2,028.0	2,028.7	0.00	0.00	0.00
8,200.0 8,300.0	86.78 86.78	91.50 91.50	6,403.4 6,409.0	-55.8 -58.4	2,127.8 2,227.6	2,128.6 2,228.4	0.00 0.00	0.00 0.00	0.00 0.00
8,400.0	86.78	91.50	6,414.7	-56.4 -61.0	2,327.4	2,328.2	0.00	0.00	0.00
8,500.0	86.78	91.50	6,420.3	-63.7	2,427.2	2,428.1	0.00	0.00	0.00
8,600.0	86.78 86.78	91.50 91.50	6,420.3 6,425.9	-63.7 -66.3	2,427.2 2,527.1	2,428.1	0.00	0.00	0.00
8,700.0	86.78	91.50	6,431.5	-68.9	2,626.9	2,627.8	0.00	0.00	0.00
8,800.0	86.78	91.50	6,437.2	-71.5	2,726.7	2,727.6	0.00	0.00	0.00

DUCHESNE COUNTY, UT (NAD 27)

Bill Barrett Corp

Planning Report

Database: Compass

Project:

Design:

Company: BILL BARRETT CORP

 Site:
 8H-20-45 LC Tribal

 Well:
 8H-20-45 LC Tribal

 Wellbore:
 8H-20-45 LC Tribal

Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 8H-20-45 LC Tribal

KB @ 6561.0ft (Original Well Elev) KB @ 6561.0ft (Original Well Elev)

True

Minimum Curvature

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,900.0	86.78	91.50	6,442.8	-74.1	2,826.5	2,827.4	0.00	0.00	0.00
9,000.0	86.78	91.50	6,448.4	-76.8	2,926.3	2,927.3	0.00	0.00	0.00
9,100.0	86.78	91.50	6,454.0	-79.4	3,026.1	3,027.1	0.00	0.00	0.00
9,200.0	86.78	91.50	6,459.7	-82.0	3,125.9	3,127.0	0.00	0.00	0.00
9,300.0	86.78	91.50	6,465.3	-84.6	3,225.7	3,226.8	0.00	0.00	0.00
9,400.0	86.78	91.50	6,470.9	-87.2	3,325.5	3,326.7	0.00	0.00	0.00
9,500.0	86.78	91.50	6,476.5	-89.8	3,425.3	3,426.5	0.00	0.00	0.00
9,600.0	86.78	91.50	6,482.2	-92.5	3,525.1	3,526.3	0.00	0.00	0.00
9,700.0	86.78	91.50	6,487.8	-95.1	3,624.9	3,626.2	0.00	0.00	0.00
9,800.0	86.78	91.50	6,493.4	-97.7	3,724.7	3,726.0	0.00	0.00	0.00
9,900.0	86.78	91.50	6,499.0	-100.3	3,824.5	3,825.9	0.00	0.00	0.00
10,000.0	86.78	91.50	6,504.7	-102.9	3,924.4	3,925.7	0.00	0.00	0.00
10,077.1	0.00	0.00	6,509.0	-104.9	4,001.3	4,002.7	112.58	-112.58	0.00

ormations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	2,134.0	2,134.0	Green River		3.24	91.50	
	2,734.0	2,734.0	Mahogany		3.24	91.50	
	4,044.0	4,044.0	TGR3		3.24	91.50	
	4,894.0	4,894.0	Douglas Creek		3.24	91.50	
	5,279.0	5,279.0	3PT MKR		3.24	91.50	
	5,734.0	5,734.0	Black Shale Facies		3.24	91.50	
	5,972.8	5,964.0	Castle Peak		3.24	91.50	
	6,539.0	6,279.0	Uteland Butte		3.24	91.50	
		6,319.0	CR 1		3.24	91.50	
		6,344.0	CR 1A Base		3.24	91.50	

SURFACE USE PLAN

BILL BARRETT CORPORATION <u>LC Tribal 5-20D-45 & LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad</u> Duchesne County, Utah

LC Tribal 5-20D-45

SWNW, 1862' FNL & 559' FWL, Sec. 20, T4S-R5W (surface hole) SWNW, 1980' FNL & 810' FWL, Sec. 20, T4S-R5W (bottom hole)

LC Tribal 8H-20-45

SWNW, 1846' FNL & 561' FWL, Sec. 20, T4S-R5W (surface hole) SENE, 1980' FNL & 700' FEL, Sec. 20, T4S-R5W (bottom hole)

LC Tribal 5H-19-45

SWNW, 1830' FNL & 563' FWL, Sec. 20, T4S-R5W (surface hole) Lot 2 (SWNW), 1980' FNL & 810' FWL, Sec. 19, T4S-R5W (bottom hole)

The onsite inspection for this pad occurred on November 15, 2011. This is a new pad with a total of three proposed wells. Plat changes and site specific stipulations requested at the onsite are reflected within this APD and summarized below.

- a) Updated topo maps B and C and damage plats to include access and pipeline for the 16-20D-45 well that previously had arch and plant issues;
- b) Updated Figure 4 to relocate production equipment near the pad entrance on cut;

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

1. <u>Existing Roads:</u>

- a. The proposed well site is located approximately 20.8 miles southwest of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).
- b. The existing State Highway 191 would be utilized from Duchesne for 3.5 miles to the existing BBC maintained Skitzy Road that would be utilized for 6.6 miles and provides access to the existing 7-3-56 DLB access road that would be utilized for 5.8 miles and provides access to the planned new access road.
- c. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

- e. The use of roads under State and Duchesne County Road Department maintenance are necessary to access the project area with no improvements proposed. No encroachment or pipeline crossing permits are required.
- f. All existing roads would be maintained and kept in good repair during all phases of operation.

2. Planned Access Road:

- a. Approximately 6,617 feet of new access road trending northeast is planned from the proposed LC Tribal 16H-19-45 access road then LC Tribal 15-24D-46. The LC Tribal 16H-19-45 and 15-24D-46 access roads have been applied for and continue an additional 19,357 feet to the existing 7-3-56 DLB access road (see Topographic Map B). The proposed access road crosses entirely Ute Tribe surface.
- b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.
- c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.
- d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes.
- e. A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.

- h. Turnouts are not proposed.
- No culverts or low-water crossings are anticipated. Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.
- j. No gates or cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- All access roads and surface disturbing activities would conform to the appropriate standard, **no higher than necessary**, to accommodate their intended function adequately as outlined in the Bureau of Land Management and Forest Service publication: <u>Surface Operating Standards for Oil and Gas Exploration</u> and Development, Fourth Edition – Revised 2007.
- m. The operator would be responsible for all maintenance needs of the new access road.

3. Location of Existing Wells (see One-Mile Radius Map):

a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed pad:

i.	water wells	none
ii.	injection wells	none
iii.	disposal wells	none
iv.	drilling wells	none
v.	temp shut-in wells	none
vi.	producing wells	one
vii.	abandoned wells	one

4. <u>Location of Production Facilities</u>

- a. Surface facilities would consist of a wellhead, separator, gas meter, combustor, (1) 500 gal methanol tank, (1) 500 glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or ESP or gas lift unit, electrical or with a natural gas or diesel fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached proposed facility diagram.
- b. Most wells would be fitted with a pump jack or Roto-flex unit or ESP or gas lift to assist liquid production. The prime mover for pump jacks or Roto-flex units

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

would be small (100 horsepower or less), electric motor or natural gas or diesel fired internal combustion engines. If a gas lift is installed, it would be set on a 10 ft x 25 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by electricity.

- c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.
- d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.
- f. Approximately 6,644 feet of pipeline corridor (see Topographic Map C) containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed trending southwest to the proposed LC Tribal 16H-19-45 then 15-24D-46 pipeline corridors. The LC Tribal 16H-19-45 and 15-24D-46 pipeline corridors have been applied for and continue 19,357 feet to the existing pipeline corridor for the 7-3-56 DLB. Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the proposed pipeline servicing nearby BBC wells. The pipeline crosses entirely Ute Tribe surface.
- g. The new segment of gas pipeline would be surface laid within a 30 foot wide pipeline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.
- h. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.
- i. Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the reestablishment of the native plant community.

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

- j. All permanent above-ground structures would be painted a flat, non-reflective color, such as Beetle Green, to match the standard environmental colors. All facilities would be painted the designated color at the time of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.
- k. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.
- 1. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.

5. <u>Location and Type of Water Supply:</u>

a. Water for the drilling and completion would be trucked from any of the following locations:

Water Right No. and Application or Change No.	Applicant	Allocation	Date	Point of Diversion	Source
43-180	Duchesne City Water Service District	5 cfs	8/13/2004	Knight Diversion Dam	Duchesne River
43-1202, Change a13837	Myton City	5.49 cfr and 3967 acre feet	3/21/1986	Knight Diversion Dam	Duchesne River
43-10444, Appln A57477	Duchesne County Upper Country Water	2 cfs	1994	Ditch at Source	Cow Canyon Spring
43-10446, Appln F57432	Duchesne County Upper Country Water	1.58 cfs	1994	Ditch at Source	Cow Canyon Spring
43-1273, Appln A17462	J.J.N.P. Company	7 cfs	1946	Strawberry River	Strawberry River
43-1273, Appln t36590	J.J.N.P. Company	4 cfs	6/03/2010	Strawberry River	Strawberry River
43-2505, Appln t37379	McKinnon Ranch Properties, LC	1.3 cfs	4/28/2011	Pumped from Sec, 17, T4SR6W	Water Canyon Lake
43-12415, Change A17215a	Peatross Ranch, LLC	1.89 cfs	09/2011	Dugout Pond	Strawberry River

b. No new water well is proposed with this application.

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

- c. Should additional water sources be pursued they would be properly permitted through the State of Utah Division of Water Rights.
- d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

6. Source of Construction Material:

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be removed from the lease or EDA area.
- c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

7. Methods of Handling Waste Disposal:

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.
- b. The reserve pit would be constructed so as not to leak, break or allow any discharge.
- c. The reserve would be lined with 12 mil (minimum) thickness polyethylene nylon reinforced liner material. The liner(s) would overlay straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit. A minimum of two feet of free board would be maintained between the maximum fluid level and the top of the reserve pit at all times.
- d. To deter livestock from entering the pit, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.
- e. Drill cuttings would be contained in the pit and buried on-site for a period not to exceed six months, weather permitting
- f. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the following state-approved disposal facilities:

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Disposal Facilities

- 1. RNI Industries, Inc. Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W
- 2. Pro Water LLC Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W
- 3. RN Industries, Inc. Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W
- 4. Water Disposal, Inc. Harmston 1-32-A1 Disposal Well (43-013-30224), UTR #00707, Sec. 32, T1S-R1W
- 5. Unified Water Pits Sec. 31, T2S-R4W
- 6. Iowa Tank Line Pits 8500 BLM Fence Road, Pleasant Valley
- 7. Western Water Solutions Sand Pass Ranch, Sections 9 and 10, T4S-R1W, permit #WD-01-2011
- g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
- h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.
- i. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO₂ gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- j. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.

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- k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.
- 1. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.
- m. Hydrocarbons would be removed from the reserve pit would as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

8. <u>Ancillary Facilities:</u>

- a. Garbage containers and portable toilets would be located on the well pad.
- b. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers.
- c. A powerline corridor is not proposed at this time but may be applied for in the future.

9. Well Site Layout:

- a. The well would be properly identified in accordance with 43 CFR 3162.6.
- b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).
- c. The pad and road designs are consistent with industry specifications.
- d. The pad has been staked at its maximum size of 400 feet x 310 feet with an inboard reserve pit size of 225 feet x 100 feet x 8 feet deep. See section 12.d below for disturbance estimates.

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- e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.
- f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.
- g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.
- h. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- i. Diversion ditches would be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.
- j. Water application may be implemented if necessary to minimize the amount of fugitive dust.
- k. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

10. Plan for Restoration of the Surface:

- a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.
- b. Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.
- c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.
- d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.

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- e. The reserve pit and that portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours. Areas not used for production purposes would be backfilled and blended into the surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the Ute Tribe specified seed mix.
- f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the Ute Tribe prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

11. Surface and Mineral Ownership:

- a. Surface ownership Ute Indian Tribe 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.
- b. Mineral ownership Ute Indian Tribe 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

12. Other Information:

- a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as report 11-324 (U-11-MQ-0916i,s) dated October 24, 2011.
- b. BBC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.
- c. Project personnel and contractors would be educated on and subject to the following requirements:
 - No dogs or firearms within the Project Area.
 - No littering within the Project Area.
 - Smoking within the Project Area would only be allowed in off-operator
 active locations or in specifically designated smoking areas. All cigarette
 butts would be placed in appropriate containers and not thrown on the
 ground or out windows of vehicles; personnel and contractors would abide
 by all fire restriction orders.
 - Campfires or uncontained fires of any kind would be prohibited.
 - Portable generators used in the Project Area would have spark arrestors.

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

d. Disturbance estimates:

Approximate Acreage Disturbances

Well Pad		3.851	acres
Access	6,617 feet	4.534	acres
Pipeline	6,644 feet	4.554	acres

Total 12.939 acres

Bill Barrett Corporation Surface Use Plan LC Tribal 5-20D-45, LC Tribal 8H-20-45 & LC Tribal 5H-19-45 Pad Duchesne County, UT

OPERATOR CERTIFICATION

Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

Executed this

Name:

28th day of Murch 2012 Venessa Langmacher

Position Title:

Senior Permit Analyst

Address:

1099 18th Street, Suite 2300, Denver, CO 80202

Telephone:

303-312-8172

E-mail:

vlangmacher@billbarrettcorp.com

Field Representative

Kary Eldredge / Bill Barrett Corporation

Address:

1820 W. Highway 40, Roosevelt, UT 84066

Telephone:

435-725-3515 (office); 435-724-6789 (mobile)

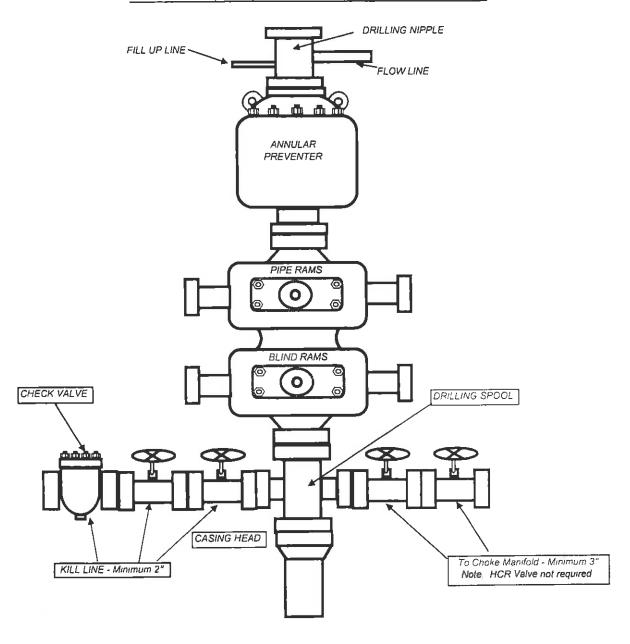
E-mail:

keldredge@billbarrettcorp.com

Venessa Langmacher, Senior Permit Analyst

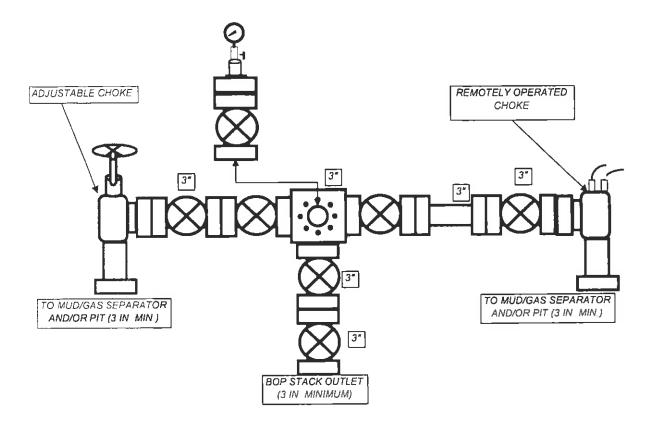
BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



BILL BARRETT CORPORATION

TYPICAL 5,000 p.s.i. CHOKE MANIFOLD





March 28, 2012

Ms. Diana Mason, Petroleum Technician State of Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 P. O. Box 145801 Salt Lake City, Utah 84114-5801

RE: H

Horizontal Drilling LC Tribal #8H-20-45

Section 20, T4S-R5W, U.S.B.&M.

Duchesne County, Utah

Surface Hole Location: 1846' FNL & 561' FWL, SWNW, 20-T4S-R5W, USB&M Bottom Hole Location: 1980' FNL & 700' FEL, SENE, 20-T4S-R5W, USB&M

Dear Ms. Mason:

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill ("APD") regarding the above-referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-2 pertaining to a temporary 640 acre spacing unit for a horizontal well.

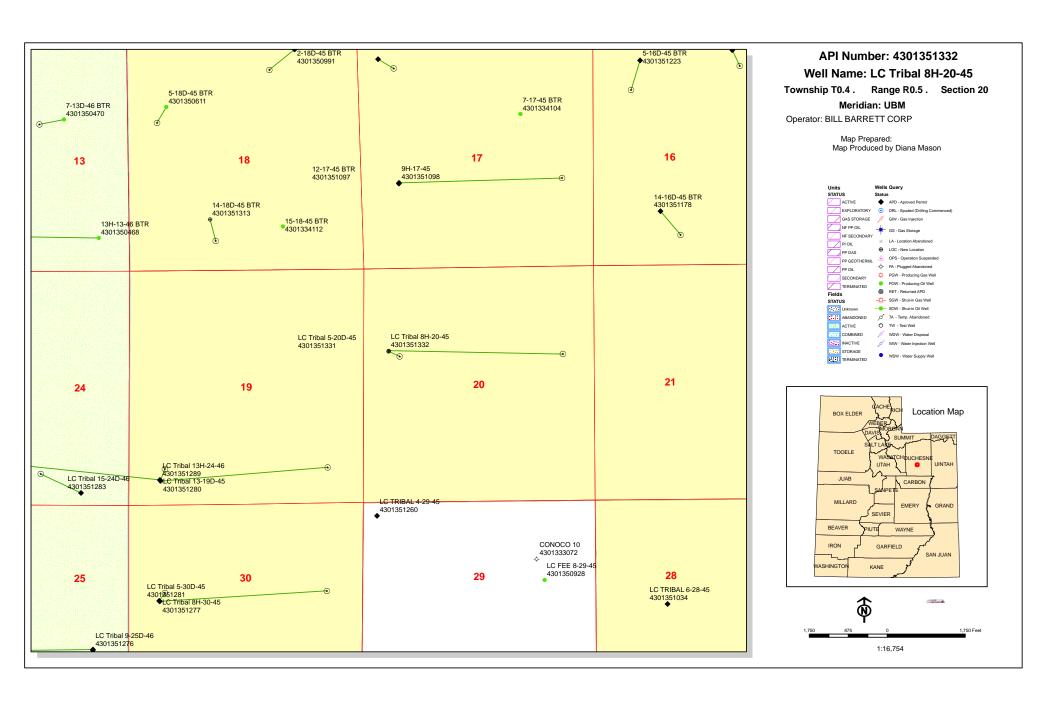
- Tribal Exploration and Development Agreement #14-20-H62-5500, which includes all
 of the subject Section 19 and other lands, allows for the drilling of the #8H-20-45 well.
- Once the well has been drilled and completed BBC will earn the tribal lease covering 640 "deep depth" acres being further described in the Exploration and Development Agreement.

Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-2. If you should have any questions or need further information, please contact me at 303-312-8544.

Sincerely,

BILL BARRETT CORPORATION

David Watts Landman



API Well Number: 43013513320000

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 3/28/2012 API NO. ASSIGNED: 43013513320000

WELL NAME: LC Tribal 8H-20-45

OPERATOR: BILL BARRETT CORP (N2165) PHONE NUMBER: 303 312-8172

CONTACT: Venessa Langmacher

PROPOSED LOCATION: SWNW 20 040S 050W Permit Tech Review:

> **SURFACE: 1846 FNL 0561 FWL Engineering Review:**

> BOTTOM: 1980 FNL 0700 FEL Geology Review:

COUNTY: DUCHESNE

LATITUDE: 40.12060 LONGITUDE: -110.48121 UTM SURF EASTINGS: 544206.00 NORTHINGS: 4441272.00

FIELD NAME: WILDCAT LEASE TYPE: 2 - Indian

LEASE NUMBER: 20G0005500 PROPOSED PRODUCING FORMATION(S): UTELAND BUTTE

SURFACE OWNER: 2 - Indian **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

 PLAT R649-2-3.

Bond: INDIAN - LPM8874725 Unit:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit**

Board Cause No: Cause 139-87 Water Permit: 43-180

Effective Date: 12/6/2011 **RDCC Review:**

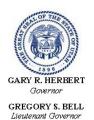
Siting: 4 Prod LGRRV-WSTC Per Sectional Drilling Units Fee Surface Agreement

Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

4 - Federal Approval - dmason 27 - Other - bhill Stipulations:



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: LC Tribal 8H-20-45 **API Well Number:** 43013513320000

Lease Number: 20G0005500

Surface Owner: INDIAN Approval Date: 4/4/2012

Issued to:

BILL BARRETT CORP, 1099 18th Street Ste 2300, Denver, CO 80202

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-87. The expected producing formation or pool is the UTELAND BUTTE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-21, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

 $\cap R$

submit an electronic sundry notice (pre-registration required) via the Utah Oil &

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 25104 API Well Number: 43013513320000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9			
ı	ES ING	5.LEASE DESIGNATION AND SERIAL NUMBER: 2OG0005500				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Uintah					
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly or eenter plugged wells, or to drill horizor or for such proposals.	deepen existing wells below tal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: LC Tribal 8H-20-45			
2. NAME OF OPERATOR: BILL BARRETT CORP			9. API NUMBER: 43013513320000			
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300	, Denver, CO, 80202 3	PHONE NUMBER: 03 312-8164 Ext	9. FIELD and POOL or WILDCAT: WILDCAT			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1846 FNL 0561 FWL			COUNTY: DUCHESNE			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWNW Section:	IIP, RANGE, MERIDIAN: 20 Township: 04.0S Range: 05.0W Meri	dian: U	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
✓ NOTICE OF INTENT	ACIDIZE	ALTER CASING	CASING REPAIR			
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
4/26/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
_	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
Report Date:		✓ OTHER	OTHER: Confidential Status			
	WILDCAT WELL DETERMINATION		·			
	completed operations. Clearly show a quests this well to be held in	•	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 02, 2012			
NAME (PLEASE PRINT) Venessa Langmacher	PHONE NUMBI 303 312-8172	ER TITLE Senior Permit Analyst				
SIGNATURE	333 312 3172	DATE				
N/A		4/26/2012				

FECEVED

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

MAR 2 9 2012

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

Lease Serial No. 20G0005500

13	1	NA	
NTFR	S. Marie	1 A E	

APPLICATION FOR PERMIT	6. If Indian, Allottee or Tribe Name				
1a. Type of Work: ☑ DRILL ☐ REENTER	7. If Unit or CA Agreement, Name and No.				
1b. Type of Well: Oil Well Gas Well Ott 2. Name of Operator Contact:	VENESSA LANGMACHER	Lease Name and Well No. LC TRIBAL 8H-20-45 API Well No.			
BILL BARRETT CORPORATION E-Mail: vlangma	cher@billbarrettcorp.com	43-013-51332			
3a. Address 1099 18TH STREET SUITE 2300 DENVER, CO 80202	3b. Phone No. (include area code) Ph: 303-312-8172 Fx: 303-291-0420	10. Field and Pool, or Exploratory UNDESIGNATED			
4. Location of Well (Report location clearly and in accorded	ance with any State requirements.*)	11. Sec., T., R., M., or Blk. and Survey or A	Area		
	40.120614 N Lat, 110.481358 W Lon	Sec 20 T4S R5W Mer UBM			
At proposed prod. zone SENE 1980FNL 700FEL 4					
 Distance in miles and direction from nearest town or post 20.8 MILES SOUTHWEST OF DUCHESNE, UT 	office*	12. County or Parish 13. St DUCHESNE UT			
 Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 700' (BTM. HOLE) 	16. No. of Acres in Lease 123995.00	17. Spacing Unit dedicated to this well640.00			
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on file			
completed, applied for, on this lease, ft. NONE	10077 MD 6509 TVD	LPM8874725			
21. Elevations (Show whether DF, KB, RT, GL, etc. 6545 GL	22. Approximate date work will start 11/01/2012	23. Estimated duration 60 DAYS (D&C)			
	24. Attachments				
The following, completed in accordance with the requirements of	Onshore Oil and Gas Order No. 1, shall be attached to t	his form:			
Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Off	em Lands, the 5. Operator certification	ormation and/or plans as may be required by the			
25. Signature (Electronic Submission)	Name (Printed/Typed) VENESSA LANGMACHER Ph: 303-312	-8172 Date 03/28/201	2		
Title SENIOR PERMIT ANALYST					
Approved by (Signature)	Name (Printed/Typed) Jerry Kenczka	Date			
My Kenishe		NOV 0 6	2012		
Title / Xseistant Field Manager Lands & Mineral Resources	VERNAL FIELD O				
pplication approval does not warrant or certify the applicant holperations thereon.	ds legal or equitable title to those rights in the subject le	se which would entitle the applicant to condu	ct		
fonditions of approval, if any, are attached. CONDITION	S OF APPROVAL ATTACHED				
itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, natates any false, fictitious or fraudulent statements or representations.	nake it a crime for any person knowingly and willfully to one as to any matter within its jurisdiction.	make to any department or agency of the Unit	ted		

Additional Operator Remarks (see next page)

NOTICE OF APPROVAL

Electronic Submission #134155 verified by the BLM Well Information System For BILL BARRETT CORPORATION, sent to the Vernal Committed to AFMSS for processing by LESLIE ROBINSON on 04/06/2012 ()

RECEIVED

NOV 0 9 2012

DIV. OF CH., GAS & MINING

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

2T.11 (1079AS

MK- 10/24/11



UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Bill Barrett Corporation

LC Tribal 8H-20-45

43-013-51332

Location:

SWNW, Sec. 20, T4S, R5W

Lease No:

2OG0005500

Agreement: N/A

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	_	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm.ut_vn'opreport@blm.gov .
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: LC Tribal 8H-20-45 11/6/2012

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All Production Equipment will be painted Beetle Green to help blend into the surrounding vegetation and meet VRM type objectives.
- The production equipment will be placed towards the front of the pad to maximize interim reclamation efforts.
- Topsoil will be windrowed and be used for reclamation purposes only.
- See Exhibit One of the approved EA U&O-FY12-Q3-086 for additional mitigation measures that must be followed for this proposed action.

General Conditions of Approval:

- A <u>30'</u> foot corridor right-of-way shall be approved. Upon completion of each pipeline in corridor, they shall be identified and filed with the Ute Tribe.
- The Ute Tribe Energy & Minerals Department is to be notified, in writing 48 hours prior to construction of pipelines.
- Construction Notice shall be given to the department on the Ute Tribe workdays, which are
 Monday through Thursday. The Company understands that they may be responsible for costs
 incurred by the Ute Tribe after hours.
- The Company shall inform contractors to maintain construction of pipelines within the approved ROW's.
- The Company shall assure the Ute Tribe that "ALL CONTRACTORS, INCLUDING SUB-CONTRACTORS, LEASING CONTRACTORS, AND ETC." have acquired a current and valid Ute Tribal Business License and have "Access Permits" prior to construction, and will have these permits in all vehicles at all times.
- You are hereby notified that working under the "umbrella" of a company does not allow you to be in the field, and can be subject to those fines of the Ute Tribe Severance Tax Ordinance.
- Any deviation of submitted APD's and ROW applications the Companies will notify the Ute Tribe
 and BIA in writing and will receive written authorization of any such change with appropriate
 authorization.
- Bill Barrett Corporation will implement a "Safety and Emergency Plan." The Company's safety director will ensure its compliance.
- All Company employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APD's, COA's, and/or ROW permits/authorizations on their person(s) during all phases of construction.
- All vehicular traffic, personnel movement, construction/restoration operations should be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.

Page 3 of 7 Well: LC Tribal 8H-20-45 11/6/2012

 The personnel from the Ute Tribe Energy & Minerals Department should be notified should cultural remains from subsurface deposits be exposed or identified during construction. All construction will cease.

Upon completion of Application for Corridor Right-Way, the company will notify the Ute Tribe Energy & Minerals Department, so that a Tribal Technician can verify Affidavit of Compl

Page 4 of 7 Well: LC Tribal 8H-20-45 11/6/2012

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A formation integrity test shall be performed at the surface casing shoe.
- Gamma Ray Log shall be run from Total Depth to Surface
- To effectively protect useable water, cement for the long-string is required to be brought 200 ft. above the surface casing shoe.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the
 daily drilling report. Components shall be operated and tested as required by Onshore Oil &
 Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be
 performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be
 reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water
 is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM
 Vernal Field Office.

Page 5 of 7 Well: LC Tribal 8H-20-45 11/6/2012

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: LC Tribal 8H-20-45 11/6/2012

OPERATING REQUIREMENT REMINDERS:

 All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written
 communication and must be received in this office by not later than the fifth business day
 following the date on which the well is placed on production. The notification shall provide, as a
 minimum, the following informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - o Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if

Page 7 of 7 Well: LC Tribal 8H-20-45 11/6/2012

performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field
 Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
 and all future meter proving schedules. A copy of the meter calibration reports shall be
 submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API
 standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
 measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
 to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs
 first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
 adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
 sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior
 approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
 before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 35699 API Well Number: 43013513320000

			FORM 9		
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		I OKIII S		
	DES NING	5.LEASE DESIGNATION AND SERIAL NUMBER: 2OG0005500			
SUNDR	RY NOTICES AND REPORTS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Uintah			
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: LC TRIBAL 8H-20-45		
2. NAME OF OPERATOR: BILL BARRETT CORP			9. API NUMBER: 43013513320000		
3. ADDRESS OF OPERATOR: 1099 18th Street Ste 2300	, Denver, CO, 80202	PHONE NUMBER: 303 312-8164 Ext	9. FIELD and POOL or WILDCAT: ALTAMONT		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1846 FNL 0561 FWL			COUNTY: DUCHESNE		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWNW Section:	HIP, RANGE, MERIDIAN: 20 Township: 04.0S Range: 05.0W Me	ridian: U	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPO	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
3/1/2014	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	l <u></u>				
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	LI TEMPORARY ABANDON		
	L TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION		
	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all pertinent details including dates,	depths, volumes, etc.		
BBC hereby red	quests a one year extension	for the subject APD.	Approved by the		
			Utah Division of Oil, Gas and Mining		
			Date: March 20, 2013		
			By: Basyll		
			33		
NAME (PLEASE PRINT)	PHONE NUME				
Venessa Langmacher	303 312-8172	Senior Permit Analyst			
SIGNATURE N/A		DATE 3/20/2013			

Sundry Number: 35699 API Well Number: 43013513320000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43013513320000

API: 43013513320000 **Well Name:** LC TRIBAL 8H-20-45

Title: Senior Permit Analyst Representing: BILL BARRETT CORP

Location: 1846 FNL 0561 FWL QTR SWNW SEC 20 TWNP 040S RNG 050W MER U

Company Permit Issued to: BILL BARRETT CORP

Date Original Permit Issued: 4/4/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No	
 Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No 	
 Has there been any unit or other agreements put in place that could affect the permitting or operation of the proposed well? Yes No 	ıis
 Have there been any changes to the access route including ownership, or rightof- way, which could affect to proposed location? Yes No 	he
• Has the approved source of water for drilling changed? 🔘 Yes 📵 No	
 Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No 	1
• Is bonding still in place, which covers this proposed well? 🌘 Yes 💭 No	
Signature: Venessa Langmacher Date: 3/20/2013	

RECEIVED: Mar. 20, 2013

Form 3160-5 (August 2007)

KEUEIVEU UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

Expires: July
Lease Serial No.
14201625500

	7	204 <i>l</i> i		
U	17	2014	5.	L

SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals	
abandoned well. Use form 3160-3 (APD) for such proposals	

6. If Indian, Allottee or Tribe Name

		<u> </u>				UINTA	NH AND OU	KAT		
SUBMIT IN TRI	PLICATE - Other instruc	ctions on rev	rerse si	de.		7. If Unit	or CA/Agreem	ent, Name and	or N	lo.
1. Type of Well ☐ Gas Well ☐ Ot	her						me and No. BAL 8H-20-4	5		
Name of Operator BILL BARRETT CORPORATION	Contact: ON E-Mail: chrtler@bil	CHRISTINA lbarrettcorp.co		R		9. API We 43-013	il No. 3-51332-00-	X1		
3a. Address 1099 18TH STREET SUITE 2 DENVER, CO 80202	300	3b. Phone No Ph: 303-31 Fx: 303-29	include 2-8597 1-0420	area code) RECEI	VED	10. Field a UNDE UNKN	nd Pool, or Ex SIGNATED OWN	pioratory		
 Location of Well (Footage, Sec., 7 Sec 20 T4S R5W SWNW 184 40.120614 N Lat, 110.481358 	6FNL 561FWL			10V 06	2014 S&MININ	DUCH	or Parish, and ESNE COU			
12. CHECK APPR	ROPRIATE BOX(ES) TO					•	R OTHER	DATA		
TYPE OF SUBMISSION				TYPE OF	ACTION					
Subsequent Report ☐ Final Abandonment Notice 13 Describe Proposed or Completed Ope If the proposal is to deepen directiona Attach the Bond under which the wor following completion of the involved testing has been completed. Final Ab determined that the site is ready for fit BBC is submitting this sundry to expire of 11/5/2014 APD-11/6/12 NEPA-EA-2013-035	Illy or recomplete horizontally, k will be performed or provide operations. If the operation res andonment Notices shall be file nal inspection.)	☐ New ☐ Plug ☐ Plug ☐ the details, including ive subsurface the Bond No. or on the Bond No. or on the Bond No. or only after all records a subsurface.	Construction of Constructions and Abase Constructions and Constructions and Constructions and Constructions and Constructions and Constructions and Construction of Constructi	ed starting of and measure BLM/BIA. on or recom	Reclama Recomp Tempor Water D date of any pid and true ve Required subpletion in a r g reclamation	olete arily Aband Disposal Toposed work rtical depths obsequent repo new interval, in, have been co	and approxim of all pertinent rts shall be file a Form 3160-4 completed, and VERNAL ENG. ENG.	markers and z d within 30 da shall be filed the operator h	rigin rigin rigin rereof ones ys once as	nal A
CONDITIONS OF	APPROVAL ATTACHE	ED .				i	PET RECL			_
	true and correct. Electronic Submission #2 For BILL BARR nitted to AFMSS for proces A HIRTLER	RETT CORPOR	RATION, NETTA M	sent to the AGEE on	e Vernal		SE)			
Signature (Electronic St	ubmission)		Date	10/07/201	4					
	THIS SPACE FO	R FEDERA	LORS							
Approved By			Title			Manage i Resourc		QCT 2	9	2014
onditions of approval, if any, are attached entify that the appleant holds legal or equi hich would entitle the applicant to conduc	table title to those rights in the:	not warrant or subject lease	Office	VE	RNAL F	TELD O	FFICE			
itle 18 U.S.C. Section 1001 and Title 43 U.States any false, fictitious or fraudulent st					lifully to mal	ke to any dep	artment or age	ncy of the Unit	ed	



Revisions to Operator-Submitted EC Data for Sundry Notice #269144

Operator Submitted

BLM Revised (AFMSS)

Sundry Type:

OTHER

NOI

Lease:

1420H625500

APDCH NOI

1420H625500

Agreement:

Operator:

BILL 1099 18TH STREET SUITE 2300 DENVER, CO 80202 Ph: 303-312-8597

BILL BARRETT CORPORATION 1099 18TH STREET SUITE 2300 DENVER, CO 80202 Ph: 303.312.8546

CHRISTINA HIRTLER PERMIT ANALYST E-Mail: chrtler@billbarrettcorp.com Cell: 303-325-4496 Ph: 303-312-8597 Fx: 303-291-0420

CHRISTINA HIRTLER
PERMIT ANALYST
E-Mail: chrtler@billbarrettcorp.com
Cell: 303-325-4496
Ph: 303-312-8597
Fx: 303-291-0420

Admin Contact:

CHRISTINA HIRTLER
PERMIT ANALYST
E-Mail: chirtler@billbarrettcorp.com
Cell: 303-325-4496
Ph: 303-312-8597
Fx: 303-291-0420

Tech Contact:

CHRISTINA HIRTLER

PERMIT ANALYST

E-Mail: AlvaLTSI E-Mail: Chirtler@billbarrettcorp.com Cell: 303-325-4496 Ph: 303-312-8597 Fx: 303-291-0420

Location:

State:

UT DUCHESNE County:

Field/Pool:

ALTAMONT

UT DUCHESNE

UNDESIGNATED UNKNOWN

Well/Facility:

LC TRIBAL 8H-20-45

Sec 20 T4S R5W Mer UBM SWNW 1846FNL 561FWL

LC TRIBAL 8H-20-45 Sec 20 T4S R5W SWNW 1846FNL 561FWL 40.120614 N Lat, 110.481358 W Lon

CONDITIONS OF APPROVAL

Bill Barrett Corporation

Notice of Intent APD Extension

Lease:

1420H625500

Well:

LC Tribal 8H-20-45

Location:

SWNW Sec 20-T4S-R5W

An extension for the referenced APD is granted with the following conditions:

- 1. The extension and APD shall expire on 11/06/2016.
- 2. No other extensions shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777